



Rec'd PCIP 15 APR 2003
09/830915

PF-0633 USN

<110> INCYTE CORPORATION
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<120> MEMBRANE TRANSPORT PROTEINS

<130> PF-0633 USN

<140> To Be Assigned
<141> Herewith

<160> 42

<170> PERL Program

<210> 1
<211> 384
<212> PRT
<213> Homo sapiens

<220>

<221> misc_feature
<223> Incyte ID No: 961344CD1

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Ser	Ser	His	Leu	Val	Ser	Arg	Thr	Gln	Asp	Ile	His	Ile	Phe	Arg
														30
Gln	Val	Thr	Ser	Arg	Gly	Glu	Ala	His	Leu	Glu	Leu	Asn	Ala	Phe
														45
Arg	Arg	Lys	His	Asp	Cys	Ala	Leu	Val	Ile	Ser	Gly	Asp	Ser	Leu
														60
Glu	Val	Cys	Leu	Lys	Tyr	Tyr	Glu	His	Glu	Phe	Val	Glu	Leu	Ala
														75
Cys	Gln	Cys	Pro	Ala	Val	Val	Cys	Cys	Arg	Cys	Ser	Pro	Thr	Gln
														90
Lys	Ala	Arg	Ile	Val	Thr	Leu	Leu	Gln	Gln	His	Thr	Gly	Arg	Arg
														105
Thr	Cys	Ala	Ile	Gly	Asp	Gly	Gly	Asn	Asp	Val	Ser	Met	Ile	Gln
														120
Ala	Ala	Asp	Cys	Gly	Ile	Gly	Ile	Glu	Gly	Lys	Glu	Gly	Lys	Gln
														135
Ala	Ser	Leu	Ala	Ala	Asp	Phe	Ser	Ile	Thr	Gln	Phe	Arg	His	Ile
														150
Gly	Arg	Leu	Leu	Met	Val	His	Gly	Arg	Asn	Ser	Tyr	Lys	Arg	Ser
														165
Ala	Ala	Leu	Gly	Gln	Phe	Val	Met	His	Arg	Gly	Leu	Ile	Ile	Ser

PF-0633 USN

170	175	180
Thr Met Gln Ala Val Phe Ser Ser Val	Phe Tyr Phe Ala Ser Val	
185	190	195
Pro Leu Tyr Gln Gly Phe Leu Met Val	Gly Tyr Ala Thr Ile Tyr	
200	205	210
Thr Met Phe Pro Val Phe Ser Leu Val	Leu Asp Gln Asp Val Lys	
215	220	225
Pro Glu Met Ala Met Leu Tyr Pro Glu	Leu Tyr Lys Asp Leu Thr	
230	235	240
Lys Gly Arg Ser Leu Ser Phe Lys Thr	Phe Leu Ile Trp Val Leu	
245	250	255
Ile Ser Ile Tyr Gln Gly Gly Ile Leu	Met Tyr Gly Ala Leu Val	
260	265	270
Leu Phe Glu Ser Glu Phe Val His Val	Val Ala Ile Ser Phe Thr	
275	280	285
Ala Leu Ile Leu Thr Glu Leu Leu Met	Val Ala Leu Thr Val Arg	
290	295	300
Thr Trp His Trp Leu Met Val Val Ala	Glu Phe Leu Ser Leu Gly	
305	310	315
Cys Tyr Val Ser Ser Leu Ala Phe Leu	Asn Glu Tyr Phe Gly Ile	
320	325	330
Gly Arg Val Ser Phe Gly Ala Phe Leu	Asp Val Ala Phe Ile Thr	
335	340	345
Thr Val Thr Phe Leu Trp Lys Val Ser	Ala Ile Thr Val Val Ser	
350	355	360
Cys Leu Pro Leu Tyr Val Leu Lys Tyr	Leu Arg Arg Lys Leu Ser	
365	370	375
Pro Pro Ser Tyr Cys Lys Leu Ala Ser		
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<211> 846
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<213> Homo sapiens

<220>
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<223> Incyte ID No: 3128782CD1

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Gly Lys Lys Asp Lys Lys Ile Lys Lys	Thr Phe Phe Glu Glu Leu		
35	40	45	
Ala Val Glu Asp Lys Gln Ala Gly Glu	Glu Glu Lys Val Leu Lys		
50	55	60	
Glu Lys Glu Gln Gln Gln Gln Gln Gln	Gln Gln Gln Lys		
65	70	75	
Lys Lys Arg Asp Thr Arg Lys Gly Arg	Arg Lys Lys Asp Val Asp		
80	85	90	
Asp Asp Gly Glu Glu Lys Glu Leu Met	Glu Arg Leu Lys Lys Leu		
95	100	105	

Ser	Val	Pro	Thr	Ser	Asp	Glu	Glu	Asp	Glu	Val	Pro	Ala	Pro	Lys
	110					115					120			
Pro	Arg	Gly	Gly	Lys	Lys	Thr	Lys	Gly	Gly	Asn	Val	Phe	Ala	Ala
	125					130					135			
Leu	Ile	Gln	Asp	Gln	Ser	Glu	Glu	Glu	Glu	Glu	Glu	Lys	His	
	140					145					150			
Pro	Pro	Lys	Pro	Ala	Lys	Pro	Glu	Lys	Asn	Arg	Ile	Asn	Lys	Ala
	155					160					165			
Val	Ser	Glu	Glu	Gln	Gln	Pro	Ala	Leu	Lys	Gly	Lys	Lys	Gly	Lys
	170					175					180			
Glu	Glu	Lys	Ser	Lys	Gly	Lys	Ala	Lys	Pro	Gln	Asn	Lys	Phe	Ala
	185					190					195			
Ala	Leu	Asp	Asn	Glu	Glu	Glu	Asp	Lys	Glu	Glu	Glu	Ile	Ile	Lys
	200					205					210			
Glu	Lys	Glu	Pro	Pro	Lys	Gln	Gly	Lys	Glu	Lys	Ala	Lys	Lys	Ala
	215					220					225			
Glu	Gln	Gly	Ser	Glu	Glu	Glu	Gly	Glu	Glu	Glu	Glu	Glu	Glu	
	230					235					240			
Glu	Gly	Gly	Glu	Ser	Lys	Ala	Asp	Asp	Pro	Tyr	Ala	His	Leu	Ser
	245					250					255			
Lys	Lys	Glu	Lys	Lys	Leu	Lys	Lys	Gln	Met	Glu	Tyr	Glu	Arg	
	260					265					270			
Gln	Val	Ala	Ser	Leu	Lys	Ala	Ala	Asn	Ala	Ala	Glu	Asn	Asp	Phe
	275					280					285			
Ser	Val	Ser	Gln	Ala	Glu	Met	Ser	Ser	Arg	Gln	Ala	Met	Leu	Glu
	290					295					300			
Asn	Ala	Ser	Asp	Ile	Lys	Leu	Glu	Lys	Phe	Ser	Ile	Ser	Ala	His
	305					310					315			
Gly	Lys	Glu	Leu	Phe	Val	Asn	Ala	Asp	Leu	Tyr	Ile	Val	Ala	Gly
	320					325					330			
Arg	Arg	Tyr	Gly	Leu	Val	Gly	Pro	Asn	Gly	Lys	Gly	Thr	Thr	
	335					340					345			
Leu	Leu	Lys	His	Ile	Ala	Asn	Arg	Ala	Leu	Ser	Ile	Pro	Pro	Asn
	350					355					360			
Ile	Asp	Val	Leu	Leu	Cys	Glu	Gln	Glu	Val	Val	Ala	Asp	Glu	Thr
	365					370					375			
Pro	Ala	Val	Gln	Ala	Val	Leu	Arg	Ala	Asp	Thr	Lys	Arg	Leu	Lys
	380					385					390			
Leu	Leu	Glu	Glu	Glu	Arg	Arg	Leu	Gln	Gly	Gln	Leu	Glu	Gln	Gly
	395					400					405			
Asp	Asp	Thr	Ala	Ala	Glu	Arg	Leu	Glu	Lys	Val	Tyr	Glu	Glu	Leu
	410					415					420			
Arg	Ala	Thr	Gly	Ala	Ala	Ala	Ala	Glu	Ala	Lys	Ala	Arg	Arg	Ile
	425					430					435			
Leu	Ala	Gly	Leu	Gly	Phe	Asp	Pro	Glu	Met	Gln	Asn	Arg	Pro	Thr
	440					445					450			
Gln	Lys	Phe	Ser	Gly	Gly	Trp	Arg	Met	Arg	Val	Ser	Leu	Ala	Arg
	455					460					465			
Ala	Leu	Phe	Met	Glu	Pro	Thr	Leu	Leu	Met	Leu	Asp	Glu	Pro	Thr
	470					475					480			
Asn	His	Leu	Asp	Leu	Asn	Ala	Val	Ile	Trp	Leu	Asn	Asn	Tyr	Leu
	485					490					495			
Gln	Gly	Trp	Arg	Lys	Thr	Leu	Leu	Ile	Val	Ser	His	Asp	Gln	Gly
	500					505					510			

PF-0633 USN

Phe Leu Asp Asp Val Cys Thr Asp Ile Ile His Leu Asp Ala Gln
515 520 525
Arg Leu His Tyr Tyr Arg Gly Asn Tyr Met Thr Phe Lys Lys Met
530 535 540
Tyr Gln Gln Lys Gln Lys Glu Leu Leu Lys Gln Tyr Glu Lys Gln
545 550 555
Glu Lys Lys Leu Lys Glu Leu Lys Ala Gly Gly Lys Ser Thr Lys
560 565 570
Gln Ala Glu Lys Gln Thr Lys Glu Ala Leu Thr Arg Lys Gln Gln
575 580 585
Lys Cys Arg Arg Lys Asn Gln Asp Glu Glu Ser Gln Glu Ala Pro
590 595 600
Glu Leu Leu Lys Arg Pro Lys Glu Tyr Thr Val Arg Phe Thr Phe
605 610 615
Pro Asp Pro Pro Pro Leu Ser Pro Pro Val Leu Gly Leu His Gly
620 625 630
Val Thr Phe Gly Tyr Gln Gly Gln Lys Pro Leu Phe Lys Asn Leu
635 640 645
Asp Phe Gly Ile Asp Met Asp Ser Arg Ile Cys Ile Val Gly Pro
650 655 660
Asn Gly Val Gly Lys Ser Thr Leu Leu Leu Leu Leu Thr Gly Lys
665 670 675
Leu Thr Pro Thr His Gly Glu Met Arg Lys Asn His Arg Leu Lys
680 685 690
Ile Gly Phe Phe Asn Gln Gln Tyr Ala Glu Gln Leu Arg Met Glu
695 700 705
Glu Thr Pro Thr Glu Tyr Leu Gln Arg Gly Phe Asn Leu Pro Tyr
710 715 720
Gln Asp Ala Arg Lys Cys Leu Gly Arg Phe Gly Leu Glu Ser His
725 730 735
Ala His Thr Ile Gln Ile Cys Lys Leu Ser Gly Gly Gln Lys Ala
740 745 750
Arg Val Val Phe Ala Glu Leu Ala Cys Arg Glu Pro Asp Val Leu
755 760 765
Ile Leu Asp Glu Pro Thr Asn Asn Leu Asp Ile Glu Ser Ile Asp
770 775 780
Ala Leu Gly Glu Ala Ile Asn Glu Tyr Lys Gly Ala Val Ile Val
785 790 795
Val Ser His Asp Ala Arg Leu Ile Thr Glu Thr Asn Cys Gln Leu
800 805 810
Trp Val Val Glu Glu Gln Ser Val Ser Gln Ile Asp Gly Asp Phe
815 820 825
Glu Asp Tyr Lys Arg Glu Val Leu Glu Ala Leu Gly Glu Val Met
830 835 840
Val Ser Arg Pro Arg Glu
845

<210> 3
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<213> Homo sapiens

<220>
<221> misc_feature

PF-0633 USN

<223> Incyte ID No: 1720440CD1

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Lys	Leu	Gly	Val	Glu	Ala	Ala	Leu	Ile	Asn	Thr	Asn	Leu	Arg	Arg
								20		25				30
Asp	Ala	Leu	Leu	His	Cys	Leu	Thr	Thr	Ser	Arg	Ala	Arg	Ala	Leu
								35		40				45
Val	Phe	Gly	Ser	Glu	Met	Ala	Ser	Ala	Ile	Cys	Glu	Val	His	Ala
								50		55				60
Ser	Leu	Asp	Pro	Ser	Leu	Ser	Leu	Phe	Cys	Ser	Gly	Ser	Trp	Glu
								65		70				75
Pro	Gly	Ala	Val	Pro	Pro	Ser	Thr	Glu	His	Leu	Asp	Pro	Leu	Leu
								80		85				90
Lys	Asp	Ala	Pro	Lys	His	Leu	Pro	Ser	Cys	Pro	Asp	Lys	Gly	Phe
								95		100				105
Thr	Asp	Lys	Leu	Phe	Tyr	Ile	Tyr	Thr	Ser	Gly	Thr	Thr	Gly	Leu
								110		115				120
Pro	Lys	Ala	Ala	Ile	Val	Val	His	Ser	Arg	Tyr	Tyr	Arg	Met	Ala
								125		130				135
Ala	Leu	Val	Tyr	Tyr	Gly	Phe	Arg	Met	Arg	Pro	Asn	Asp	Ile	Val
								140		145				150
Tyr	Asp	Cys	Leu	Pro	Leu	Tyr	His	Ser	Ala	Gly	Asn	Ile	Val	Gly
								155		160				165
Ile	Gly	Gln	Cys	Leu	Leu	His	Gly	Met	Thr	Val	Val	Ile	Arg	Lys
								170		175				180
Lys	Phe	Ser	Ala	Ser	Arg	Phe	Trp	Asp	Asp	Cys	Ile	Lys	Tyr	Asn
								185		190				195
Cys	Thr	Ile	Val	Gln	Tyr	Ile	Gly	Glu	Leu	Cys	Arg	Tyr	Leu	Leu
								200		205				210
Asn	Gln	Pro	Pro	Arg	Glu	Ala	Glu	Asn	Gln	His	Gln	Val	Arg	Met
								215		220				225
Ala	Leu	Gly	Asn	Gly	Leu	Arg	Gln	Ser	Ile	Trp	Thr	Asn	Phe	Ser
								230		235				240
Ser	Arg	Phe	His	Ile	Pro	Gln	Val	Ala	Glu	Phe	Tyr	Gly	Ala	Thr
								245		250				255
Glu	Cys	Asn	Cys	Ser	Leu	Gly	Asn	Phe	Asp	Ser	Gln	Val	Gly	Ala
								260		265				270
Cys	Gly	Phe	Asn	Ser	Arg	Ile	Leu	Ser	Ser	Val	Tyr	Pro	Ile	Arg
								275		280				285
Leu	Val	Arg	Val	Asn	Glu	Asp	Thr	Met	Glu	Leu	Ile	Arg	Gly	Pro
								290		295				300
Asp	Gly	Val	Cys	Ile	Pro	Cys	Gln	Pro	Gly	Glu	Pro	Gly	Gln	Leu
								305		310				315
Val	Gly	Arg	Ile	Ile	Gln	Lys	Asp	Pro	Leu	Arg	Arg	Phe	Asp	Gly
								320		325				330
Tyr	Leu	Asn	Gln	Gly	Ala	Asn	Asn	Lys	Lys	Ile	Ala	Lys	Asp	Val
								335		340				345
Phe	Lys	Lys	Gly	Asp	Gln	Ala	Tyr	Leu	Thr	Gly	Asp	Val	Leu	Val
								350		355				360
Met	Asp	Glu	Leu	Gly	Tyr	Leu	Tyr	Phe	Arg	Asp	Arg	Thr	Gly	Asp
								365		370				375
Thr	Phe	Arg	Trp	Lys	Gly	Glu	Asn	Val	Ser	Thr	Thr	Glu	Val	Glu

PF-0633 USN

380	385	390
Gly Thr Leu Ser Arg Leu Leu Asp Met	Ala Asp Val Ala Val	Tyr
395	400	405
Gly Val Glu Val Pro Gly Thr Glu Gly	Arg Ala Gly Met Ala Ala	
410	415	420
Val Ala Ser Pro Thr Gly Asn Cys Asp	Leu Glu Arg Phe Ala Gln	
425	430	435
Val Leu Glu Lys Glu Leu Pro Leu Tyr	Ala Arg Pro Ile Phe Leu	
440	445	450
Arg Leu Leu Pro Glu Leu His Lys Thr	Gly Thr Tyr Lys Phe Gln	
455	460	465
Lys Thr Glu Leu Arg Lys Glu Gly Phe	Asp Pro Ala Ile Val Lys	
470	475	480
Asp Pro Leu Phe Tyr Leu Asp Ala Gln	Lys Gly Arg Tyr Val Pro	
485	490	495
Leu Asp Gln Glu Ala Tyr Ser Arg Ile	Gln Ala Gly Glu Glu Lys	
500	505	510
Leu		

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<213> Homo sapiens

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<223> Incyte ID No: 2274290CD1

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Pro Gly Arg Leu Leu Pro Pro Leu Arg Phe Gln Thr Phe Ser Ala			
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Val Arg Tyr Ser Asp Gly Tyr Arg Ser Ser Ser Leu Leu Arg Ala			
35	40	45	
Val Ala His Leu Arg Ser Gln Leu Trp Ala His Leu Pro Arg Ala			
50	55	60	
Pro Leu Ala Pro Arg Trp Ser Pro Ser Ala Trp Cys Trp Val Gly			
65	70	75	
Gly Ala Leu Leu Gly Pro Met Val Leu Ser Lys His Pro His Leu			
80	85	90	
Cys Leu Val Ala Leu Cys Glu Ala Glu Ala Pro Pro Ala Ser			
95	100	105	
Ser Thr Pro His Val Val Gly Ser Arg Phe Asn Trp Lys Leu Phe			
110	115	120	
Trp Gln Phe Leu His Pro His Leu Leu Val Leu Gly Val Ala Val			
125	130	135	
Val Leu Ala Leu Gly Ala Ala Leu Val Asn Val Gln Ile Pro Leu			
140	145	150	
Leu Leu Gly Gln Leu Val Glu Val Val Ala Lys Tyr Thr Arg Asp			
155	160	165	
His Val Gly Ser Phe Met Thr Glu Ser Gln Asn Leu Ser Thr His			
170	175	180	

PF-0633 USN

Leu	Leu	Ile	Leu	Tyr	Gly	Val	Gln	Gly	Leu	Leu	Thr	Phe	Gly	Tyr
				185					190					195
Leu	Val	Leu	Leu	Ser	His	Val	Gly	Glu	Arg	Met	Ala	Val	Asp	Met
				200					205					210
Arg	Arg	Ala	Leu	Phe	Ser	Ser	Leu	Leu	Arg	Gln	Asp	Ile	Thr	Phe
				215					220					225
Phe	Asp	Ala	Asn	Lys	Thr	Gly	Gln	Leu	Val	Ser	Arg	Leu	Thr	Thr
				230					235					240
Asp	Val	Gln	Glu	Phe	Lys	Ser	Ser	Phe	Lys	Leu	Val	Ile	Ser	Gln
				245					250					255
Gly	Leu	Arg	Ser	Cys	Thr	Gln	Val	Ala	Gly	Cys	Leu	Val	Ser	Leu
				260					265					270
Ser	Met	Leu	Ser	Thr	Arg	Leu	Thr	Leu	Leu	Leu	Met	Val	Ala	Thr
				275					280					285
Pro	Ala	Leu	Met	Gly	Val	Gly	Thr	Leu	Met	Gly	Ser	Gly	Leu	Arg
				290					295					300
Lys	Leu	Ser	Arg	Gln	Cys	Gln	Glu	Gln	Ile	Ala	Arg	Ala	Met	Gly
				305					310					315
Val	Ala	Asp	Glu	Ala	Leu	Gly	Asn	Val	Arg	Thr	Val	Arg	Ala	Phe
				320					325					330
Ala	Met	Glu	Gln	Arg	Glu	Glu	Glu	Arg	Tyr	Gly	Ala	Glu	Leu	Glu
				335					340					345
Ala	Cys	Arg	Cys	Arg	Ala	Glu	Glu	Leu	Gly	Arg	Gly	Ile	Ala	Leu
				350					355					360
Phe	Gln	Gly	Leu	Ser	Asn	Ile	Ala	Phe	Asn	Cys	Met	Val	Leu	Gly
				365					370					375
Thr	Leu	Phe	Ile	Gly	Gly	Ser	Leu	Val	Ala	Gly	Gln	Gln	Leu	Thr
				380					385					390
Gly	Gly	Asp	Leu	Met	Ser	Phe	Leu	Val	Ala	Ser	Gln	Thr	Val	Gln
				395					400					405
Arg	Ser	Met	Ala	Asn	Leu	Ser	Val	Leu	Phe	Gly	Gln	Val	Val	Arg
				410					415					420
Gly	Leu	Ser	Ala	Gly	Ala	Arg	Val	Phe	Glu	Tyr	Met	Ala	Leu	Asn
				425					430					435
Pro	Cys	Ile	Pro	Leu	Ser	Gly	Gly	Cys	Cys	Val	Pro	Lys	Glu	Gln
				440					445					450
Leu	Arg	Gly	Ser	Val	Thr	Phe	Gln	Asn	Val	Cys	Phe	Ser	Tyr	Pro
				455					460					465
Cys	Arg	Pro	Gly	Phe	Glu	Val	Leu	Lys	Asp	Phe	Thr	Leu	Thr	Leu
				470					475					480
Pro	Pro	Gly	Lys	Ile	Val	Ala	Leu	Val	Gly	Gln	Ser	Gly	Gly	
				485					490					495
Lys	Thr	Thr	Val	Ala	Ser	Leu	Leu	Glu	Arg	Phe	Tyr	Asp	Pro	Thr
				500					505					510
Ala	Gly	Val	Val	Met	Leu	Asp	Gly	Arg	Asp	Leu	Arg	Thr	Leu	Asp
				515					520					525
Pro	Ser	Trp	Leu	Arg	Gly	Gln	Val	Val	Gly	Phe	Ile	Ser	Gln	Glu
				530					535					540
Pro	Val	Leu	Phe	Gly	Thr	Thr	Ile	Met	Glu	Asn	Ile	Arg	Phe	Gly
				545					550					555
Lys	Leu	Glu	Ala	Ser	Asp	Glu	Glu	Val	Tyr	Thr	Ala	Ala	Arg	Glu
				560					565					570
Ala	Asn	Ala	His	Glu	Phe	Ile	Thr	Ser	Phe	Pro	Glu	Gly	Tyr	Asn
				575					580					585

PF-0633 USN

Thr Val Val Gly Glu Arg Gly Thr Thr	Leu Ser Gly Gly Gln Lys	
590	595	600
Gln Arg Leu Ala Ile Ala Arg Ala Leu	Ile Lys Gln Pro Thr Val	
605	610	615
Leu Ile Leu Asp Glu Ala Thr Ser Ala	Leu Asp Ala Glu Ser Glu	
620	625	630
Arg Val Val Gln Glu Ala Leu Asp Arg	Ala Ser Ala Gly Arg Thr	
635	640	645
Val Leu Val Ile Ala His Arg Leu Ser	Thr Val Arg Gly Ala His	
650	655	660
Cys Ile Val Val Met Ala Asp Gly Arg	Val Trp Glu Ala Gly Thr	
665	670	675
His Glu Glu Leu Leu Lys Lys Gly Gly	Leu Tyr Ala Glu Leu Ile	
680	685	690
Arg Arg Gln Ala Leu Asp Ala Pro Arg	Thr Ala Ala Pro Pro Pro	
695	700	705
Lys Lys Pro Glu Gly Pro Arg Ser His	Gln His Lys Ser	
710	715	

<210> 5
<211> 635
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2740029CD1

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Gly Thr Ser Val Gly Met Ser Thr Phe Ser Ile Met Asp Tyr Val			
20		25	30
Val Phe Val Leu Leu Val Leu Ser Leu Ala Ile Gly Leu Tyr			
35		40	45
His Ala Cys Arg Gly Trp Gly Arg His Thr Val Gly Glu Leu Leu			
50		55	60
Met Ala Asp Arg Lys Met Gly Cys Leu Pro Val Ala Leu Ser Leu			
65		70	75
Leu Ala Thr Phe Gln Ser Ala Val Ala Ile Leu Gly Val Pro Ser			
80		85	90
Glu Ile Tyr Arg Phe Gly Thr Gln Tyr Trp Phe Leu Gly Cys Cys			
95		100	105
Tyr Phe Leu Gly Leu Leu Ile Pro Ala His Ile Phe Ile Pro Val			
110		115	120
Phe Tyr Arg Leu His Leu Thr Ser Ala Tyr Glu Tyr Leu Glu Leu			
125		130	135
Arg Phe Asn Lys Thr Val Arg Val Cys Gly Thr Val Thr Phe Ile			
140		145	150
Phe Gln Met Val Ile Tyr Met Gly Val Val Leu Tyr Ala Pro Ser			
155		160	165
Leu Ala Leu Asn Ala Val Thr Gly Phe Asp Leu Trp Leu Ser Val			
170		175	180
Leu Ala Leu Gly Ile Val Cys Thr Val Tyr Thr Ala Leu Gly Gly			

	185	190	195
Leu Lys Ala Val Ile Trp Thr Asp Val	Phe Gln Thr Leu Val Met		
200	205	210	
Phe Leu Gly Gln Leu Ala Val Ile Ile Val Gly Ser Ala Lys Val			
215	220	225	
Gly Gly Leu Gly Arg Val Trp Ala Val Ala Ser Gln His Gly Arg			
230	235	240	
Ile Ser Gly Phe Glu Leu Asp Pro Asp Pro Phe Val Arg His Thr			
245	250	255	
Phe Trp Thr Leu Ala Phe Gly Gly Val Phe Met Met Leu Ser Leu			
260	265	270	
Tyr Gly Val Asn Gln Ala Gln Val Gln Arg Tyr Leu Ser Ser Arg			
275	280	285	
Thr Glu Lys Ala Ala Val Leu Ser Cys Tyr Ala Val Phe Pro Phe			
290	295	300	
Gln Gln Val Ser Leu Cys Val Gly Cys Leu Ile Gly Leu Val Met			
305	310	315	
Phe Ala Tyr Tyr Gln Glu Tyr Pro Met Ser Ile Gln Gln Ala Gln			
320	325	330	
Ala Ala Pro Asp Gln Phe Val Leu Tyr Phe Val Met Asp Leu Leu			
335	340	345	
Lys Gly Leu Pro Gly Leu Pro Gly Leu Phe Ile Ala Cys Leu Phe			
350	355	360	
Ser Gly Ser Leu Ser Thr Ile Ser Ser Ala Phe Asn Ser Leu Ala			
365	370	375	
Thr Val Thr Met Glu Asp Leu Ile Arg Pro Trp Phe Pro Glu Phe			
380	385	390	
Ser Glu Ala Arg Ala Ile Met Leu Ser Arg Gly Leu Ala Phe Gly			
395	400	405	
Tyr Gly Leu Leu Cys Leu Gly Met Ala Tyr Ile Ser Ser Gln Met			
410	415	420	
Gly Pro Val Leu Gln Ala Ala Ile Ser Ile Phe Gly Met Val Gly			
425	430	435	
Gly Pro Leu Leu Gly Leu Phe Cys Leu Gly Met Phe Phe Pro Cys			
440	445	450	
Ala Asn Pro Pro Gly Ala Val Val Gly Leu Leu Ala Gly Leu Val			
455	460	465	
Met Ala Phe Trp Ile Gly Ile Gly Ser Ile Val Thr Ser Met Gly			
470	475	480	
Ser Ser Met Pro Pro Ser Pro Ser Asn Gly Ser Ser Phe Ser Leu			
485	490	495	
Pro Thr Asn Leu Thr Val Ala Thr Val Thr Thr Leu Met Pro Leu			
500	505	510	
Thr Thr Phe Ser Lys Pro Thr Gly Leu Gln Arg Phe Tyr Ser Leu			
515	520	525	
Ser Tyr Leu Trp Tyr Ser Ala His Asn Ser Thr Thr Val Ile Val			
530	535	540	
Val Gly Leu Ile Val Ser Leu Leu Thr Gly Arg Met Arg Gly Arg			
545	550	555	
Ser Leu Asn Pro Ala Thr Ile Tyr Pro Val Leu Pro Lys Leu Leu			
560	565	570	
Ser Leu Leu Pro Leu Ser Cys Gln Lys Arg Leu His Cys Arg Ser			
575	580	585	
Tyr Gly Gln Asp His Leu Asp Thr Gly Leu Phe Pro Glu Lys Pro			

PF-0633 USN

590	595	600
Arg Asn Gly Val	Leu Gly Asp Ser Arg	Asp Lys Glu Ala Met Ala
605	610	615
Leu Asp Gly Thr Ala Tyr Gln Gly Ser	Ser Ser Thr Cys Ile Leu	
620	625	630
Gln Glu Thr Ser Leu		
635		

<210> 6
<211> 535
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2414415CD1

<400> 6

Met Glu Glu Gly Ala Arg His Arg Asn Asn Thr Glu Lys Lys His			
1	5	10	15
Pro Gly Gly Gly Glu Ser Asp Ala Ser Pro Glu Ala Gly Ser Gly			
20	25	30	
Gly Gly Gly Val Ala Leu Lys Lys Glu Ile Gly Leu Val Ser Ala			
35	40	45	
Cys Gly Ile Ile Val Gly Asn Ile Ile Gly Ser Gly Ile Phe Val			
50	55	60	
Ser Pro Lys Gly Val Leu Glu Asn Ala Gly Ser Val Gly Leu Ala			
65	70	75	
Leu Ile Val Trp Ile Val Thr Gly Phe Ile Thr Val Val Gly Ala			
80	85	90	
Leu Cys Tyr Ala Glu Leu Gly Val Thr Ile Pro Lys Ser Gly Gly			
95	100	105	
Asp Tyr Ser Tyr Val Lys Asp Ile Phe Gly Gly Leu Ala Gly Phe			
110	115	120	
Leu Arg Leu Trp Ile Ala Val Leu Val Ile Tyr Pro Thr Asn Gln			
125	130	135	
Ala Val Ile Ala Leu Thr Phe Ser Asn Tyr Val Leu Gln Pro Leu			
140	145	150	
Phe Pro Thr Cys Phe Pro Pro Glu Ser Gly Leu Arg Leu Leu Ala			
155	160	165	
Ala Ile Cys Leu Leu Leu Thr Trp Val Asn Cys Ser Ser Val			
170	175	180	
Arg Trp Ala Thr Arg Val Gln Asp Ile Phe Thr Ala Gly Lys Leu			
185	190	195	
Leu Ala Leu Ala Leu Ile Ile Ile Met Gly Ile Val Gln Ile Cys			
200	205	210	
Lys Gly Glu Tyr Phe Trp Leu Glu Pro Lys Asn Ala Phe Glu Asn			
215	220	225	
Phe Gln Glu Pro Asp Ile Gly Leu Val Ala Leu Ala Phe Leu Gln			
230	235	240	
Gly Ser Phe Ala Tyr Gly Gly Trp Asn Phe Leu Asn Tyr Val Thr			
245	250	255	
Glu Glu Leu Val Asp Pro Tyr Lys Asn Leu Pro Arg Ala Ile Phe			
260	265	270	

PF-0633 USN

Ile Ser Ile Pro Leu Val Thr Phe Val Tyr Val Phe Ala Asn Val		
275	280	285
Ala Tyr Val Thr Ala Met Ser Pro Gln Glu Leu Leu Ala Ser Asn		
290	295	300
Ala Val Ala Val Thr Phe Gly Glu Lys Leu Leu Gly Val Met Ala		
305	310	315
Trp Ile Met Pro Ile Ser Val Ala Leu Ser Thr Phe Gly Gly Val		
320	325	330
Asn Gly Ser Leu Phe Thr Ser Ser Arg Leu Phe Phe Ala Gly Ala		
335	340	345
Arg Glu Gly His Leu Pro Ser Val Leu Ala Met Ile His Val Lys		
350	355	360
Arg Cys Thr Pro Ile Pro Ala Leu Leu Phe Thr Cys Ile Ser Thr		
365	370	375
Leu Leu Met Leu Val Thr Ser Asp Met Tyr Thr Leu Ile Asn Tyr		
380	385	390
Val Gly Phe Ile Asn Tyr Leu Phe Tyr Gly Val Thr Val Ala Gly		
395	400	405
Gln Ile Val Leu Arg Trp Lys Lys Pro Asp Ile Pro Arg Pro Ile		
410	415	420
Lys Ile Asn Leu Leu Phe Pro Ile Ile Tyr Leu Leu Phe Trp Ala		
425	430	435
Phe Leu Leu Val Phe Ser Leu Trp Ser Glu Pro Val Val Cys Gly		
440	445	450
Ile Gly Leu Ala Ile Met Leu Thr Gly Val Pro Val Tyr Phe Leu		
455	460	465
Gly Val Tyr Trp Gln His Lys Pro Lys Cys Phe Ser Asp Phe Ile		
470	475	480
Glu Leu Leu Thr Leu Val Ser Gln Lys Met Cys Val Val Val Tyr		
485	490	495
Pro Glu Val Glu Arg Gly Ser Gly Thr Glu Glu Ala Asn Glu Asp		
500	505	510
Met Glu Glu Gln Gln Pro Met Tyr Gln Pro Thr Pro Thr Lys		
515	520	525
Asp Lys Asp Val Ala Gly Gln Pro Gln Pro		
530	535	

<210> 7

<211> 456

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 2466714CD1

<400> 7

Met Glu Ala Ser Trp Gly Ser Phe Asn Ala Glu Arg Gly Trp Tyr		
1	5	10
Val Ser Val Gln Gln Pro Glu Glu Ala Glu Ala Glu Glu Leu Ser		
20	25	30
Pro Leu Leu Ser Asn Glu Leu His Arg Gln Arg Ser Pro Gly Val		
35	40	45
Ser Phe Gly Leu Ser Val Phe Asn Leu Met Asn Ala Ile Met Gly		

50	55	60
Ser Gly Ile Leu Gly Leu Ala Tyr Val Met Ala Asn Thr Gly Val		
65	70	75
Phe Gly Phe Ser Phe Leu Leu Leu Thr Val Ala Leu Leu Ala Ser		
80	85	90
Tyr Ser Val His Leu Leu Leu Ser Met Cys Ile Gln Thr Ala Val		
95	100	105
Thr Ser Tyr Glu Asp Leu Gly Leu Phe Ala Phe Gly Leu Pro Gly		
110	115	120
Lys Leu Val Val Ala Gly Thr Ile Ile Ile Gln Asn Ile Gly Ala		
125	130	135
Met Ser Ser Tyr Leu Leu Ile Ile Lys Thr Glu Leu Pro Ala Ala		
140	145	150
Ile Ala Glu Phe Leu Thr Gly Asp Tyr Asn Arg Tyr Trp Tyr Leu		
155	160	165
Asp Gly Gln Thr Leu Leu Ile Ile Cys Val Gly Ile Val Phe		
170	175	180
Pro Leu Ala Leu Leu Pro Lys Ile Gly Phe Leu Gly Tyr Thr Ser		
185	190	195
Ser Leu Ser Phe Phe Met Met Phe Phe Ala Leu Val Val Ile		
200	205	210
Ile Lys Lys Trp Ser Ile Pro Cys Pro Leu Thr Leu Asn Tyr Val		
215	220	225
Glu Lys Gly Phe Gln Ile Ser Asn Val Thr Asp Asp Cys Lys Pro		
230	235	240
Lys Leu Phe His Phe Ser Lys Glu Ser Ala Tyr Ala Leu Pro Thr		
245	250	255
Met Ala Phe Ser Phe Leu Cys His Thr Ser Ile Leu Pro Ile Tyr		
260	265	270
Cys Glu Leu Gln Ser Pro Ser Lys Lys Arg Met Gln Asn Val Thr		
275	280	285
Asn Thr Ala Ile Ala Leu Ser Phe Leu Ile Tyr Phe Ile Ser Ala		
290	295	300
Leu Phe Gly Tyr Leu Thr Phe Tyr Asp Lys Val Glu Ser Glu Leu		
305	310	315
Leu Lys Gly Tyr Ser Lys Tyr Leu Ser His Asp Val Val Val Met		
320	325	330
Thr Val Lys Leu Cys Ile Leu Phe Ala Val Leu Leu Thr Val Pro		
335	340	345
Leu Ile His Phe Pro Ala Arg Lys Ala Val Thr Met Met Phe Phe		
350	355	360
Ser Asn Phe Pro Phe Ser Trp Ile Arg His Phe Leu Ile Thr Leu		
365	370	375
Ala Leu Asn Ile Ile Ile Val Leu Leu Ala Ile Tyr Val Pro Asp		
380	385	390
Ile Arg Asn Val Phe Gly Val Val Gly Ala Ser Thr Ser Thr Cys		
395	400	405
Leu Ile Phe Ile Phe Pro Gly Leu Phe Tyr Leu Lys Leu Ser Arg		
410	415	420
Glu Asp Phe Leu Ser Trp Lys Lys Leu Gly Ala Phe Val Leu Leu		
425	430	435
Ile Phe Gly Ile Leu Val Gly Asn Phe Ser Leu Ala Leu Ile Ile		
440	445	450
Phe Asp Trp Ile Asn Lys		

<210> 8
<211> 325
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2617942CD1

<400> 8

Met	Phe	Ala	Asn	Leu	Lys	Tyr	Val	Ser	Leu	Gly	Ile	Leu	Val	Phe
1				5				10					15	
Gln	Thr	Thr	Ser	Leu	Val	Leu	Thr	Met	Arg	Tyr	Ser	Arg	Thr	Leu
				20					25				30	
Lys	Glu	Gly	Pro	Arg	Tyr	Leu	Ser	Ser	Thr	Ala	Val	Val	Val	
				35				40				45		
Ala	Glu	Leu	Leu	Lys	Ile	Met	Ala	Cys	Ile	Leu	Leu	Val	Tyr	Lys
				50					55			60		
Asp	Ser	Lys	Cys	Ser	Leu	Arg	Ala	Leu	Asn	Arg	Val	Leu	His	Asp
				65					70			75		
Glu	Ile	Leu	Asn	Lys	Pro	Met	Glu	Thr	Leu	Lys	Leu	Ala	Ile	Pro
				80				85				90		
Ser	Gly	Ile	Tyr	Thr	Leu	Gln	Asn	Asn	Leu	Leu	Tyr	Val	Ala	Leu
				95				100				105		
Ser	Asn	Leu	Asp	Ala	Ala	Thr	Tyr	Gln	Val	Thr	Tyr	Gln	Leu	Lys
				110				115				120		
Ile	Leu	Thr	Thr	Ala	Leu	Phe	Ser	Val	Ser	Met	Leu	Ser	Lys	Lys
				125				130				135		
Leu	Gly	Val	Tyr	Gln	Trp	Leu	Ser	Leu	Val	Ile	Leu	Met	Thr	Gly
				140				145				150		
Val	Ala	Phe	Val	Gln	Trp	Pro	Ser	Asp	Ser	Gln	Leu	Asp	Ser	Lys
				155				160				165		
Glu	Leu	Ser	Ala	Gly	Ser	Gln	Phe	Val	Gly	Leu	Met	Ala	Val	Leu
				170				175				180		
Thr	Ala	Cys	Phe	Ser	Ser	Gly	Phe	Ala	Gly	Val	Tyr	Phe	Glu	Lys
				185				190				195		
Ile	Leu	Lys	Glu	Thr	Lys	Gln	Ser	Val	Trp	Ile	Arg	Asn	Ile	Gln
				200				205				210		
Leu	Gly	Phe	Phe	Gly	Ser	Ile	Phe	Gly	Leu	Met	Gly	Val	Tyr	Ile
				215				220				225		
Tyr	Asp	Gly	Glu	Leu	Val	Ser	Lys	Asn	Gly	Phe	Phe	Gln	Gly	Tyr
				230				235				240		
Asn	Arg	Leu	Thr	Trp	Ile	Val	Val	Val	Leu	Gln	Ala	Leu	Gly	Gly
				245				250				255		
Leu	Val	Ile	Ala	Ala	Val	Ile	Lys	Tyr	Ala	Asp	Asn	Ile	Leu	Lys
				260				265				270		
Gly	Phe	Ala	Thr	Ser	Leu	Ser	Ile	Ile	Leu	Ser	Thr	Leu	Ile	Ser
				275				280				285		
Tyr	Phe	Trp	Leu	Gln	Asp	Phe	Val	Pro	Thr	Ser	Val	Phe	Phe	Leu
				290				295				300		
Gly	Ala	Ile	Leu	Val	Ile	Thr	Ala	Thr	Phe	Leu	Tyr	Gly	Tyr	Asp
				305				310				315		

PF-0633 USN

Pro Lys Pro Ala Gly Asn Pro Thr Lys Ala
320 325

<210> 9
<211> 178
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2945431CD1

<400> 9
Met Ser Leu Ser Pro Arg Ser Gln Leu Ala Ile Ile Pro Gln Glu
1 5 10 15
Pro Phe Leu Phe Ser Gly Thr Val Arg Glu Asn Leu Asp Pro Gln
20 25 30
Gly Leu His Lys Asp Arg Ala Leu Trp Gln Ala Leu Lys Gln Cys
35 40 45
His Leu Ser Glu Val Ile Thr Ser Met Gly Gly Leu Asp Gly Glu
50 55 60
Leu Gly Glu Gly Arg Ser Leu Ser Leu Gly Gln Arg Gln Leu
65 70 75
Leu Cys Leu Ala Arg Ala Leu Leu Thr Asp Ala Lys Ile Leu Cys
80 85 90
Ile Asp Glu Ala Thr Ala Ser Val Asp Gln Lys Thr Asp Gln Leu
95 100 105
Leu Gln Gln Thr Ile Cys Lys Arg Phe Ala Asn Lys Thr Val Leu
110 115 120
Thr Ile Ala His Arg Leu Asn Thr Ile Leu Asn Ser Asp Arg Val
125 130 135
Leu Val Leu Gln Ala Gly Arg Val Val Glu Leu Asp Ser Pro Ala
140 145 150
Thr Leu Arg Asn Gln Pro His Ser Leu Phe Gln Gln Leu Leu Gln
155 160 165
Ser Ser Gln Gln Gly Val Pro Ala Ser Leu Gly Gly Pro
170 175

<210> 10
<211> 255
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 4074113CD1

<400> 10
Met Glu Arg Glu Met Glu Gly Arg Pro Leu His Asn Glu Gly Trp
1 5 10 15
Ile Asp Arg Ser Arg Val Gln Gln Lys Asp Leu Pro Asn Lys Cys
20 25 30
Pro Gln Thr Leu Trp Ser Glu Gln Ala Phe Pro Pro Asn Pro Gly
35 40 45

PF-0633 USN

Gln	Val	Gly	Ile	Val	Gly	Arg	Thr	Gly	Ala	Gly	Lys	Ser	Ser	Leu
50									55					60
Ala	Ser	Gly	Leu	Leu	Arg	Leu	Pro	Glu	Ala	Ala	Glu	Gly	Gly	Ile
65									70					75
Trp	Ile	Asp	Gly	Val	Pro	Ile	Ala	His	Val	Gly	Leu	His	Thr	Leu
80									85					90
Arg	Ser	Arg	Ile	Ser	Ile	Ile	Pro	Gln	Asp	Pro	Ile	Leu	Phe	Pro
95									100					105
Gly	Ser	Leu	Arg	Met	Asn	Leu	Asp	Leu	Leu	Gln	Glu	His	Ser	Asp
110									115					120
Glu	Ala	Ile	Trp	Ala	Ala	Leu	Glu	Thr	Val	Gln	Leu	Lys	Ala	Leu
125									130					135
Val	Ala	Ser	Leu	Pro	Gly	Gln	Leu	Gln	Tyr	Lys	Cys	Ala	Asp	Arg
140									145					150
Gly	Glu	Asp	Leu	Ser	Val	Gly	Gln	Lys	Gln	Leu	Leu	Cys	Leu	Ala
155									160					165
Arg	Ala	Leu	Leu	Arg	Lys	Thr	Gln	Ile	Leu	Ile	Leu	Asp	Glu	Ala
170									175					180
Thr	Ala	Ala	Val	Asp	Pro	Gly	Thr	Glu	Leu	Gln	Met	Gln	Ala	Met
185									190					195
Leu	Gly	Ser	Trp	Phe	Ala	Gln	Cys	Thr	Val	Leu	Leu	Ile	Ala	His
200									205					210
Arg	Leu	Arg	Ser	Val	Met	Asp	Cys	Ala	Arg	Val	Leu	Val	Met	Asp
215									220					225
Lys	Gly	Gln	Val	Ala	Glu	Ser	Gly	Ser	Pro	Ala	Gln	Leu	Leu	Ala
230									235					240
Gln	Lys	Gly	Leu	Phe	Tyr	Arg	Leu	Ala	Gln	Glu	Ser	Gly	Leu	Val
245									250					255

<210> 11
<211> 462
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 1413743CD1

Met	Ala	Gln	Val	Ser	Ile	Asn	Asn	Asp	Tyr	Ser	Glu	Trp	Asp	Leu
1					5				10				15	
Ser	Thr	Asp	Ala	Gly	Glu	Arg	Ala	Arg	Leu	Leu	Gln	Ser	Pro	Cys
						20			25				30	
Val	Asp	Thr	Ala	Pro	Lys	Ser	Glu	Trp	Glu	Ala	Ser	Pro	Gly	Gly
					35				40				45	
Leu	Asp	Arg	Gly	Thr	Thr	Ser	Thr	Leu	Gly	Ala	Ile	Phe	Ile	Val
						50			55				60	
Val	Asn	Ala	Cys	Leu	Gly	Ala	Gly	Leu	Leu	Asn	Phe	Pro	Ala	Ala
						65			70				75	
Phe	Ser	Thr	Ala	Gly	Gly	Val	Ala	Ala	Gly	Ile	Ala	Leu	Gln	Met
						80			85				90	
Gly	Met	Leu	Val	Phe	Ile	Ile	Ser	Gly	Leu	Val	Ile	Leu	Ala	Tyr
						95			100				105	

PF-0633 USN

Cys Ser Gln Ala Ser Asn Glu Arg Thr Tyr Gln Glu Val Val Trp		
110	115	120
Ala Val Cys Gly Lys Leu Thr Gly Val Leu Cys Glu Val Ala Ile		
125	130	135
Ala Val Tyr Thr Phe Gly Thr Cys Ile Ala Phe Leu Ile Ile Ile		
140	145	150
Gly Asp Gln Gln Asp Lys Ile Ile Ala Val Met Ala Lys Glu Pro		
155	160	165
Glu Gly Ala Ser Gly Pro Trp Tyr Thr Asp Arg Lys Phe Thr Ile		
170	175	180
Ser Leu Thr Ala Phe Leu Phe Ile Leu Pro Leu Ser Ile Pro Arg		
185	190	195
Glu Ile Gly Phe Gln Lys Tyr Ala Ser Phe Leu Ser Val Val Gly		
200	205	210
Thr Trp Tyr Val Thr Ala Ile Val Ile Ile Lys Tyr Ile Trp Pro		
215	220	225
Asp Lys Glu Met Thr Pro Gly Asn Ile Leu Thr Arg Pro Ala Ser		
230	235	240
Trp Met Ala Val Phe Asn Ala Met Pro Thr Ile Cys Phe Gly Phe		
245	250	255
Gln Cys His Val Ser Ser Val Pro Val Phe Asn Ser Met Gln Gln		
260	265	270
Pro Glu Val Lys Thr Trp Gly Gly Val Val Thr Ala Ala Met Val		
275	280	285
Ile Ala Leu Ala Val Tyr Met Gly Thr Gly Ile Cys Gly Phe Leu		
290	295	300
Thr Phe Gly Ala Ala Val Asp Pro Asp Val Leu Leu Ser Tyr Pro		
305	310	315
Ser Glu Asp Met Ala Val Ala Val Ala Arg Ala Phe Ile Ile Leu		
320	325	330
Ser Val Leu Thr Ser Tyr Pro Ile Leu His Phe Cys Gly Arg Ala		
335	340	345
Val Val Glu Gly Leu Trp Leu Arg Tyr Gln Gly Val Pro Val Glu		
350	355	360
Glu Asp Val Gly Arg Glu Arg Arg Arg Val Leu Gln Thr Leu		
365	370	375
Val Trp Phe Leu Leu Thr Leu Leu Ala Leu Phe Ile Pro Asp		
380	385	390
Ile Gly Lys Val Ile Ser Val Ile Gly Gly Leu Ala Ala Cys Phe		
395	400	405
Ile Phe Val Phe Pro Gly Leu Cys Leu Ile Gln Ala Lys Leu Ser		
410	415	420
Glu Met Glu Glu Val Lys Pro Ala Ser Trp Trp Val Leu Val Ser		
425	430	435
Tyr Gly Val Leu Leu Val Thr Leu Gly Ala Phe Ile Phe Gly Gln		
440	445	450
Thr Thr Ala Asn Ala Ile Phe Val Asp Leu Leu Ala		
455	460	

<210> 12
<211> 758
<212> PRT
<213> Homo sapiens

PF-0633 USN

<220>
<221> misc_feature
<223> Incyte ID No: 1733477CD1

<400> 12
Met Gly Leu Ala Asp Ala Ser Gly Pro Arg Asp Thr Gln Ala Leu
1 5 10 15
Leu Ser Ala Thr Gln Ala Met Asp Leu Arg Arg Arg Asp Tyr His
20 25 30
Met Glu Arg Pro Leu Leu Asn Gln Glu His Leu Glu Glu Leu Gly
35 40 45
Arg Trp Gly Ser Ala Pro Arg Thr His Gln Trp Arg Thr Trp Leu
50 55 60
Gln Cys Ser Arg Ala Arg Ala Tyr Ala Leu Leu Leu Gln His Leu
65 70 75
Pro Val Leu Val Trp Leu Pro Arg Tyr Pro Val Arg Asp Trp Leu
80 85 90
Leu Gly Asp Leu Leu Ser Gly Leu Ser Val Ala Ile Met Gln Leu
95 100 105
Pro Gln Gly Leu Ala Tyr Ala Leu Ala Gly Leu Pro Pro Val
110 115 120
Phe Gly Leu Tyr Ser Ser Phe Tyr Pro Val Phe Ile Tyr Phe Leu
125 130 135
Phe Gly Thr Ser Arg His Ile Ser Val Gly Thr Phe Ala Val Met
140 145 150
Ser Val Met Val Gly Val Thr Glu Ser Leu Ala Pro Gln Ala
155 160 165
Leu Asn Asp Ser Met Ile Asn Glu Thr Ala Arg Asp Ala Ala Arg
170 175 180
Val Gln Val Ala Ser Thr Leu Ser Val Leu Val Gly Leu Phe Gln
185 190 195
Val Gly Leu Gly Leu Ile His Phe Gly Phe Val Val Thr Tyr Leu
200 205 210
Ser Glu Pro Leu Val Arg Gly Tyr Thr Thr Ala Ala Ala Val Gln
215 220 225
Val Phe Val Ser Gln Leu Lys Tyr Val Phe Gly Leu His Leu Ser
230 235 240
Ser His Ser Gly Pro Leu Ser Leu Ile Tyr Thr Val Leu Glu Val
245 250 255
Cys Trp Lys Leu Pro Gln Ser Lys Val Gly Thr Val Val Thr Ala
260 265 270
Ala Val Ala Gly Val Val Leu Val Val Lys Leu Leu Asn Asp
275 280 285
Lys Leu Gln Gln Gln Leu Pro Met Pro Ile Pro Gly Glu Leu Leu
290 295 300
Thr Leu Ile Gly Ala Thr Gly Ile Ser Tyr Gly Met Gly Leu Lys
305 310 315
His Arg Phe Glu Val Asp Val Val Gly Asn Ile Pro Ala Gly Leu
320 325 330
Val Pro Pro Val Ala Pro Asn Thr Gln Leu Phe Ser Lys Leu Val
335 340 345
Gly Ser Ala Phe Thr Ile Ala Val Val Gly Phe Ala Ile Ala Ile
350 355 360
Ser Leu Gly Lys Ile Phe Ala Leu Arg His Gly Tyr Arg Val Asp

365	370	375
Ser Asn Gln Glu	Leu Val Ala Leu Gly	Leu Ser Asn Leu Ile Gly
380	385	390
Gly Ile Phe Gln Cys	Phe Pro Val Ser	Cys Ser Met Ser Arg Ser
395	400	405
Leu Val Gln Glu	Ser Thr Gly Gly Asn	Ser Gln Val Ala Gly Ala
410	415	420
Ile Ser Ser Leu	Phe Ile Leu Leu Ile	Ile Val Lys Leu Gly Glu
425	430	435
Leu Phe His Asp	Leu Pro Lys Ala Val	Leu Ala Ala Ile Ile Ile
440	445	450
Val Asn Leu Lys	Gly Met Leu Arg Gln	Leu Ser Asp Met Arg Ser
455	460	465
Leu Trp Lys Ala	Asn Arg Ala Asp Leu	Leu Ile Trp Leu Val Thr
470	475	480
Phe Thr Ala Thr	Ile Leu Leu Asn Leu	Asp Leu Gly Leu Val Val
485	490	495
Ala Val Ile Phe Ser	Leu Leu Leu Val	Val Val Arg Thr Gln Met
500	505	510
Pro His Tyr Ser Val	Leu Gly Gln Val	Pro Asp Thr Asp Ile Tyr
515	520	525
Arg Asp Val Ala Glu	Tyr Ser Glu Ala	Lys Glu Val Arg Gly Val
530	535	540
Lys Val Phe Arg Ser	Ser Ala Thr Val	Tyr Phe Ala Asn Ala Glu
545	550	555
Phe Tyr Ser Asp Ala	Leu Lys Gln Arg	Cys Gly Val Asp Val Asp
560	565	570
Phe Leu Ile Ser Gln	Lys Lys Lys Leu	Leu Lys Lys Gln Glu Gln
575	580	585
Leu Lys Leu Lys	Gln Leu Gln Lys Glu	Glu Lys Leu Arg Lys Gln
590	595	600
Ala Ala Ser Pro	Lys Gly Ala Ser Val	Ser Ile Asn Val Asn Thr
605	610	615
Ser Leu Glu Asp Met	Arg Ser Asn Asn	Val Glu Asp Cys Lys Met
620	625	630
Met Val Ser Ser	Gly Asp Lys Met Glu	Asp Ala Thr Ala Asn Gly
635	640	645
Gln Glu Asp Ser	Lys Ala Pro Asp Gly	Ser Thr Leu Lys Ala Leu
650	655	660
Gly Leu Pro Gln	Pro Asp Phe His Ser	Leu Ile Leu Asp Leu Gly
665	670	675
Ala Leu Ser Phe	Val Asp Thr Val Cys	Leu Lys Ser Leu Lys Asn
680	685	690
Ile Phe His Asp	Phe Arg Glu Ile Glu	Val Glu Val Tyr Met Ala
695	700	705
Ala Cys His Ser	Pro Val Val Ser Gln	Leu Glu Ala Gly His Phe
710	715	720
Phe Asp Ala Ser	Ile Thr Lys Lys His	Leu Phe Ala Ser Val His
725	730	735
Asp Ala Val Thr	Phe Ala Leu Gln His	Pro Arg Pro Val Pro Asp
740	745	750
Ser Pro Val Ser Val	Thr Arg Leu	
755		

PF-0633 USN

<210> 13
<211> 336
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2641908CD1

<400> 13

Met	Met	Gly	Pro	Gly	Leu	Ala	Phe	Gly	Leu	Gly	Ser	Leu	Met	Leu	
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Arg	Leu	Tyr	Val	Asp	Ile	Asn	Gln	Met	Pro	Glu	Gly	Gly	Ile	Ser	
					20				25					30	
Leu	Thr	Ile	Lys	Asp	Pro	Arg	Trp	Val	Gly	Ala	Trp	Trp	Leu	Gly	
					35				40					45	
Phe	Leu	Ile	Ala	Ala	Gly	Ala	Val	Ala	Leu	Ala	Ala	Ile	Pro	Tyr	
					50				55					60	
Phe	Phe	Phe	Pro	Lys	Glu	Met	Pro	Lys	Glu	Lys	Arg	Glu	Leu	Gln	
					65				70					75	
Phe	Arg	Arg	Lys	Val	Leu	Ala	Val	Thr	Asp	Ser	Pro	Ala	Arg	Lys	
					80				85					90	
Gly	Lys	Asp	Ser	Pro	Ser	Lys	Gln	Ser	Pro	Gly	Glu	Ser	Thr	Lys	
					95				100					105	
Lys	Gln	Asp	Gly	Leu	Val	Gln	Ile	Ala	Pro	Asn	Leu	Thr	Val	Ile	
					110				115					120	
Gln	Phe	Ile	Lys	Val	Phe	Pro	Arg	Val	Leu	Leu	Gln	Thr	Leu	Arg	
					125				130					135	
His	Pro	Ile	Phe	Leu	Leu	Val	Val	Leu	Ser	Gln	Val	Cys	Leu	Ser	
					140				145					150	
Ser	Met	Ala	Ala	Gly	Met	Ala	Thr	Phe	Leu	Pro	Lys	Phe	Leu	Glu	
					155				160					165	
Arg	Gln	Phe	Ser	Ile	Thr	Ala	Ser	Tyr	Ala	Asn	Leu	Leu	Ile	Gly	
					170				175					180	
Cys	Leu	Ser	Phe	Pro	Ser	Val	Ile	Val	Gly	Ile	Val	Val	Gly	Gly	
					185				190					195	
Val	Leu	Val	Lys	Arg	Leu	His	Leu	Gly	Pro	Val	Gly	Cys	Gly	Ala	
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Met	Glu	Ala	Cys	Ser	Cys	Pro	Leu	Asp	Gly	Phe	Asn	Pro	Val	Cys	
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Asp	Pro	Ser	Thr	Arg	Val	Glu	Tyr	Ile	Thr	Pro	Cys	His	Ala	Gly	
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Cys	Ser	Ser	Trp	Val	Val	Gln	Asp	Ala	Leu	Asp	Asn	Ser	Gln	Ser	
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Pro	Pro	Thr	Ser	His	Pro	His	Ala	Gly	His	Gln	His	Leu	Asn	Leu	
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Arg	Leu	Leu	Gln	Gly	Glu	Thr	Trp	Ala	Ala	Leu	Ala	Gly	Ala	Glu	
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PF-0633 USN

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<213> Homo sapiens

<220>
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35 40 45
Phe Arg Phe Leu His Glu Thr Gly Gly Ala Met Val Tyr Asp Lys
50 55 60
Pro Pro Lys Phe Ala Met Ser Arg Glu Gln Met Ser Gln Ser Cys
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35 40 45
Asn Ile Gln Asp Leu Ala Pro Ser Cys Ala Gly Phe Leu Phe Gly
50 55 60
Val Ala Asn Thr Ala Gly Ala Leu Ala Gly Val Val Gly Val Cys
65 70 75
Leu Gly Gly Tyr Leu Met Glu Thr Thr Gly Ser Trp Thr Cys Leu
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Phe Asn Leu Val Ala Ile Ile Ser Asn Leu Gly Leu Cys Thr Phe
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PF-0633 USN

Glu Asp Leu

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PF-0633 USN

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Phe	Trp	Gly	Leu	Val	Gly	Ile	Ala	Gly	Pro	Trp	Phe	Val	Pro	Lys
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Val	Cys	Cys	Tyr	Leu	Phe	Trp	Leu	Ile	Ala	Ile	Leu	Ala	Gln	Leu
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PF-0633 USN

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<212> DNA

<213> Homo sapiens

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PF-0633 USN

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PF-0633 USN

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PF-0633 USN

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PF-0633 USN

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 <212> DNA
 <213> Homo sapiens

<220>
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 <223> Incyte ID No: 1733477CB1

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 <211> 1481
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <223> Incyte ID No: 2641908CB1

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 ggggtatattt taagctgaaa ggaatagaaaa tgatgtatgac agcaactcgc ccctctacct 180
 cgggatccctg tttgcagtga ccatgtggg gcccaggcctg gccttgggc tggcaggcct 240
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PF-0633 USN

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<210> 31
<211> 667
<212> DNA
<213> *Homo sapiens*

<220>
<221> misc_feature
<223> Incyte ID No: 2656554CB1

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gagacagtca agggttatgt cagaaaaagga tgagtatca g tttcaacatc agggagcggt 180
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<210> 32  
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<212> DNA  
<213> Homo sapiens
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<220>
<221> misc_feature
<223> Incyte ID No: 2719228CB1

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ccctgttaggt tacagagccca tcacggtgcg gaagctcatg cagggcatgg gccttggcct 180
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PF-0633 USN

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<210> 33

<211> 1447

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 3657824CB1

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PF-0633 USN

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<210> 34
<211> 657
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 5378485CB1

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<210> 35
<211> 646
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> GenBank ID No: g2612939

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Ala Phe Cys Val Tyr Val Gly Gly Gly Trp Arg Phe Leu Arg
35 40 45
Ile Val Cys Lys Thr Ala Arg Arg Asp Leu Phe Gly Leu Ser Val
50 55 60
Leu Ile Arg Val Arg Leu Glu Leu Arg Arg His Arg Arg Ala Gly
65 70 75
Asp Thr Ile Pro Cys Ile Phe Gln Ala Val Ala Arg Arg Gln Pro
80 85 90
Glu Arg Leu Ala Leu Val Asp Ala Ser Ser Gly Ile Cys Trp Thr
95 100 105
Phe Ala Gln Leu Asp Thr Tyr Ser Asn Ala Val Ala Asn Leu Phe

110	115	120
Arg Gln Leu Gly Phe Ala Pro Gly Asp Val Val Ala Val Phe Leu		
125	130	135
Glu Gly Arg Pro Glu Phe Val Gly Leu Trp Leu Gly Leu Ala Lys		
140	145	150
Ala Gly Val Val Ala Ala Leu Leu Asn Val Asn Leu Arg Arg Glu		
155	160	165
Pro Leu Ala Phe Cys Leu Gly Thr Ser Ala Ala Lys Ala Leu Ile		
170	175	180
Tyr Gly Gly Glu Met Ala Ala Ala Val Ala Glu Val Ser Glu Gln		
185	190	195
Leu Gly Lys Ser Leu Leu Lys Phe Cys Ser Gly Asp Leu Gly Pro		
200	205	210
Glu Ser Ile Leu Pro Asp Thr Gln Leu Leu Asp Pro Met Leu Ala		
215	220	225
Glu Ala Pro Thr Thr Pro Leu Ala Gln Ala Pro Gly Lys Gly Met		
230	235	240
Asp Asp Arg Leu Phe Tyr Ile Tyr Thr Ser Gly Thr Thr Gly Leu		
245	250	255
Pro Lys Ala Ala Ile Val Val His Ser Arg Tyr Tyr Arg Ile Ala		
260	265	270
Ala Phe Gly His His Ser Tyr Ser Met Arg Ala Ala Asp Val Leu		
275	280	285
Tyr Asp Cys Leu Pro Leu Tyr His Ser Ala Gly Asn Ile Met Gly		
290	295	300
Val Gly Gln Cys Val Ile Tyr Gly Leu Thr Val Val Leu Arg Lys		
305	310	315
Lys Phe Ser Ala Ser Arg Phe Trp Asp Asp Cys Val Lys Tyr Asn		
320	325	330
Cys Thr Val Val Gln Tyr Ile Gly Glu Ile Cys Arg Tyr Leu Leu		
335	340	345
Arg Gln Pro Val Arg Asp Val Glu Gln Arg His Arg Val Arg Leu		
350	355	360
Ala Val Gly Asn Gly Leu Arg Pro Ala Ile Trp Glu Glu Phe Thr		
365	370	375
Gln Arg Phe Gly Val Pro Gln Ile Gly Glu Phe Tyr Gly Ala Thr		
380	385	390
Glu Cys Asn Cys Ser Ile Ala Asn Met Asp Gly Lys Val Gly Ser		
395	400	405
Cys Gly Phe Asn Ser Arg Ile Leu Thr His Val Tyr Pro Ile Arg		
410	415	420
Leu Val Lys Val Asn Glu Asp Thr Met Glu Pro Leu Arg Asp Ser		
425	430	435
Glu Gly Leu Cys Ile Pro Cys Gln Pro Gly Glu Pro Gly Leu Leu		
440	445	450
Val Gly Gln Ile Asn Gln Gln Asp Pro Leu Arg Arg Phe Asp Gly		
455	460	465
Tyr Val Ser Asp Ser Ala Thr Asn Lys Lys Ile Ala His Ser Val		
470	475	480
Phe Arg Lys Gly Asp Ser Ala Tyr Leu Ser Gly Asp Val Leu Val		
485	490	495
Met Asp Glu Leu Gly Tyr Met Tyr Phe Arg Asp Arg Ser Gly Asp		
500	505	510
Thr Phe Arg Trp Arg Gly Glu Asn Val Ser Thr Thr Glu Val Glu		

515	520	525
Ala Val Leu Ser Arg Leu Leu Gly Gln	Thr Asp Val Ala Val	Tyr
530	535	540
Gly Val Ala Val Pro Gly Val Glu Gly	Lys Ala Gly Met Ala	Ala
545	550	555
Ile Ala Asp Pro His Ser Gln Leu Asp	Pro Asn Ser Met Tyr	Gln
560	565	570
Glu Leu Gln Lys Val Leu Ala Ser Tyr	Ala Arg Pro Ile Phe	Leu
575	580	585
Arg Leu Leu Pro Gln Val Asp Thr Thr	Gly Thr Phe Lys Ile	Gln
590	595	600
Lys Thr Arg Leu Gln Arg Glu Gly Phe	Asp Pro Arg Gln Thr	Ser
605	610	615
Asp Arg Leu Phe Phe Leu Asp Leu Lys	Gln Gly Arg Tyr Val	Pro
620	625	630
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635	640	645
Leu		

<210> 36
<211> 691
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> GenBank ID No: g425474

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Thr His Ile Lys Pro Leu Lys Cys Ser Ser Ser Leu Arg Leu Thr		
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Val Gly Thr Gly Leu Phe Ile Ala Leu His Ser Lys Ile Ser Pro		
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Glu Ser Arg Ile Gln Thr Val Gln Cys Glu Val Asp Ser Tyr Gln		
65	70	75
Thr Asp Gln Ile Thr Phe Ala Lys Ser Gly Gly Ile Pro Arg Tyr		
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Ile Gly Val Leu Ile Leu Pro Asp Cys Val Tyr Leu Phe Gly Ala		
95	100	105
Ile Leu Gly Ala Phe Val Ala Ala Val Met Asn Val Tyr Ile Pro		
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Leu Tyr Leu Gly Asp Phe Val Ser Ser Leu Ser Arg Cys Val Val		
125	130	135
Thr His Glu Gly Phe Val Ser Ala Val Tyr Val Pro Thr Leu Arg		
140	145	150
Leu Cys Ser Ser Tyr Leu Leu Gln Ser Leu Ser Thr Phe Leu Tyr		
155	160	165
Ile Gly Leu Leu Gly Ser Val Gly Glu Arg Met Ala Arg Arg Met		
170	175	180

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Phe	Asp	Val	His	Ser	Ser	Gly	Lys	Leu	Val	Glu	Ile	Ile	Gly	Ser
				200					205					210
Asp	Val	Gln	Asn	Phe	Lys	Ser	Ser	Phe	Lys	Gln	Cys	Ile	Ser	Gln
				215					220					225
Gly	Leu	Arg	Asn	Gly	Ile	Gln	Val	Val	Gly	Ser	Val	Phe	Ala	Leu
				230					235					240
Leu	Ser	Ile	Ser	Pro	Thr	Leu	Thr	Ala	Ala	Leu	Ile	Gly	Cys	Leu
				245					250					255
Pro	Cys	Val	Phe	Leu	Ile	Gly	Ser	Leu	Met	Gly	Thr	Glu	Leu	Arg
				260					265					270
His	Ile	Ser	Arg	Glu	Val	Gln	Ser	Gln	Asn	Ser	Leu	Phe	Ala	Ser
				275					280					285
Leu	Ile	Asp	Glu	Ala	Phe	Ser	His	Ile	Arg	Thr	Val	Lys	Ser	Leu
				290					295					300
Ala	Met	Glu	Asp	Phe	Leu	Ile	Asn	Lys	Ile	Asn	Tyr	Asn	Val	Asp
				305					310					315
Lys	Ala	Lys	Met	Leu	Ser	Glu	Lys	Leu	Ser	Phe	Gly	Ile	Gly	Ser
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Phe	Gln	Gly	Leu	Ser	Asn	Leu	Thr	Leu	Asn	Gly	Val	Val	Leu	Gly
				335					340					345
Val	Leu	Tyr	Val	Gly	Gly	His	Leu	Met	Ser	Arg	Gly	Glu	Leu	Asp
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Ala	Gly	His	Leu	Met	Ser	Phe	Leu	Ala	Thr	Thr	Gln	Thr	Leu	Gln
				365					370					375
Arg	Ser	Leu	Thr	Gln	Leu	Ser	Leu	Leu	Tyr	Gly	Gln	Val	Val	Arg
				380					385					390
Gly	Tyr	Thr	Ala	Leu	Lys	Arg	Ile	His	Asp	Ile	Leu	Ala	Leu	Pro
				395					400					405
Ser	Gly	Ile	Gly	Ser	Ile	Pro	Ser	Ser	Ser	Ser	Ser	Leu	Val	Val
				410					415					420
Ser	Lys	Gln	His	Val	Asn	Asn	Ile	Lys	Glu	Leu	Pro	Ser	Ser	Ser
				425					430					435
Ile	Tyr	Ser	Ala	Pro	Ser	Ile	Glu	Phe	Ser	Asp	Val	Lys	Phe	Ala
				440					445					450
Tyr	Pro	Asn	Arg	Pro	Glu	Thr	Ile	Val	Leu	Asn	Glu	Leu	Ser	Met
				455					460					465
Phe	Leu	Pro	Gly	Gly	Lys	Val	Ile	Ala	Leu	Val	Gly	Gln	Ser	Gly
				470					475					480
Ala	Gly	Lys	Ser	Thr	Val	Val	Ser	Leu	Leu	Glu	Arg	Phe	Tyr	Asp
				485					490					495
Pro	Ile	Ser	Gly	Glu	Ile	Leu	Leu	Asn	Gly	Asp	Lys	Leu	Thr	Asn
				500					505					510
Phe	Asn	Val	Asn	Tyr	Leu	Arg	Ser	Lys	Leu	Ile	Gly	Tyr	Ile	Ser
				515					520					525
Gln	Glu	Pro	Gln	Ile	Phe	Asn	Ala	Ser	Ile	Arg	Glu	Asn	Ile	Arg
				530					535					540
Phe	Gly	Arg	Phe	Asp	Ala	Thr	Asp	Glu	Glu	Val	Glu	Glu	Ala	Ala
				545					550					555
Lys	Leu	Ala	Tyr	Ala	His	Asp	Phe	Ile	Ser	Asn	Asp	Leu	Pro	Tyr
				560					565					570
Gly	Tyr	Asp	Thr	Leu	Val	Gly	Gln	Gly	Thr	Gly	Thr	Ile	Ala	Gly
				575					580					585

PF-0633 USN

Leu Ser Gly Gly Gln Arg Gln Arg Ile Ala Ile Ala Arg Ile Leu
590 595 600
Leu Lys Asn Ala Pro Ile Leu Leu Met Asp Glu Ala Thr Ser Ala
605 610 615
Leu Asp Thr Glu Ser Glu Ala Lys Val Gln Asn Ala Leu Asn Asn
620 625 630
Ala Met Lys Gly Arg Thr Val Leu Ile Ile Ala His Arg Leu Ser
635 640 645
Thr Val Arg Lys Ala Asp Leu Ile Leu Val Met Ser Lys Gly Gln
650 655 660
Ile Val Glu Lys Gly Thr His Ser Glu Leu Met Ala Asn His Gly
665 670 675
Tyr Tyr Tyr Asn Leu Val Gln Arg Gln Glu Gly Cys Asp Val Phe
680 685 690
Asp

<210> 37
<211> 634
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> GenBank ID No: g3015617

<400> 37
Met Thr Val Ala Ser Thr Ala Ala Pro Ser Tyr Thr Thr Ser Asp
1 5 10 15
Thr Asn Arg Val Ile Ser Thr Phe Ser Val Val Asp Tyr Val Val
20 25 30
Phe Gly Leu Leu Val Leu Ser Leu Val Ile Gly Leu Tyr His
35 40 45
Ala Cys Arg Gly Trp Gly Arg His Thr Val Gly Glu Leu Leu Met
50 55 60
Ala Asp Arg Lys Met Gly Cys Leu Pro Val Ala Leu Ser Leu Leu
65 70 75
Ala Thr Phe Gln Ser Ala Val Ala Ile Leu Gly Gly Pro Ala Glu
80 85 90
Ile Tyr Arg Phe Gly Thr Gln Tyr Trp Phe Leu Gly Cys Ser Tyr
95 100 105
Phe Leu Gly Leu Leu Ile Pro Ala His Ile Phe Ile Pro Val Phe
110 115 120
Tyr Arg Leu His Leu Thr Ser Ala Tyr Glu Tyr Leu Glu Leu Arg
125 130 135
Phe Asn Lys Ala Val Arg Ile Cys Gly Thr Val Thr Phe Ile Phe
140 145 150
Gln Met Val Val Tyr Met Gly Val Ala Leu Tyr Ala Pro Ser Leu
155 160 165
Ala Leu Asn Ala Val Thr Gly Phe Asp Leu Trp Leu Ser Val Leu
170 175 180
Ala Leu Gly Ile Val Cys Asn Ile Tyr Thr Ala Leu Gly Gly Leu
185 190 195
Lys Ala Val Ile Trp Thr Asp Val Phe Gln Thr Leu Ile Met Phe

200	205	210
Leu Gly Gln Leu Val Val Ile Ile Val	Gly Ala Ala Lys Val	Gly
215	220	225
Gly Leu Gly His Val Trp Ala Val Ala	Ser Gln His Gly Leu	Ile
230	235	240
Ser Gly Ile Glu Leu Asp Pro Asp Pro	Phe Val Arg His Thr	Phe
245	250	255
Trp Thr Leu Ala Phe Gly Gly Val Phe	Met Met Leu Ser Leu	Tyr
260	265	270
Gly Val Asn Gln Ala Gln Val Gln Arg	Tyr Leu Ser Ser His	Ser
275	280	285
Glu Lys Ala Ala Val Leu Ser Cys Tyr	Ala Val Phe Pro Cys	Gln
290	295	300
Gln Val Ala Leu Cys Met Ser Cys Leu	Ile Gly Leu Val Met	Phe
305	310	315
Ala Tyr Tyr Lys Lys Tyr Ser Met Ser	Pro Gln Gln Glu Gln	Ala
320	325	330
Ala Pro Asp Gln Leu Val Leu Tyr Phe	Val Met Asp Leu Leu	Lys
335	340	345
Asp Met Pro Gly Leu Pro Gly Leu Phe	Val Ala Cys Leu Phe	Ser
350	355	360
Gly Ser Leu Ser Thr Ile Ser Ser Ala	Phe Asn Ser Leu Ala	Thr
365	370	375
Val Thr Met Glu Asp Leu Ile Gln Pro	Trp Phe Pro Gln Leu	Thr
380	385	390
Glu Thr Arg Ala Ile Met Leu Ser Arg	Ser Leu Ala Phe Ala	Tyr
395	400	405
Gly Leu Val Cys Leu Gly Met Ala Tyr	Val Ser Ser His Leu	Gly
410	415	420
Ser Val Leu Gln Ala Ala Leu Ser Ile	Phe Gly Met Val Gly	Gly
425	430	435
Pro Leu Leu Gly Leu Phe Cys Leu Gly	Met Phe Phe Pro Cys	Ala
440	445	450
Asn Pro Leu Gly Ala Ile Val Gly Leu	Leu Thr Gly Leu Thr	Met
455	460	465
Ala Phe Trp Ile Gly Ile Gly Ser Ile	Val Ser Arg Met Ser	Ser
470	475	480
Ala Ala Ala Ser Pro Pro Leu Asn Gly	Ser Ser Ser Phe Leu	Pro
485	490	495
Ser Asn Leu Thr Val Ala Thr Val Thr	Thr Leu Met Pro Ser	Thr
500	505	510
Leu Ser Lys Pro Thr Gly Leu Gln Gln	Phe Tyr Ser Leu Ser	Tyr
515	520	525
Leu Trp Tyr Ser Ala His Asn Ser Thr	Thr Val Ile Ala Val	Gly
530	535	540
Leu Ile Val Ser Leu Leu Thr Gly Gly	Met Arg Gly Arg Ser	Leu
545	550	555
Asn Pro Gly Thr Ile Tyr Pro Val Leu	Pro Lys Leu Leu Ala	Leu
560	565	570
Leu Pro Leu Ser Cys Gln Lys Arg Leu	Cys Trp Arg Ser His	Asn
575	580	585
Gln Asp Ile Pro Val Val Thr Asn Leu	Phe Pro Glu Lys Met	Gly
590	595	600
Asn Gly Ala Leu Gln Asp Ser Arg Asp	Lys Glu Arg Met Ala	Glu

PF-0633 USN

605	610	615
Asp Gly Leu Val His Gln Pro Cys Ser	Pro Thr Tyr Ile Val Gln	
620	625	630
Glu Thr Ser Leu		

<210> 38
<211> 507
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> GenBank ID No: g3639058

<400> 38

Met Ala Gly Ala Gly Pro Lys Arg Arg Ala Leu Ala Ala Pro Ala		
1	5	10
Ala Glu Glu Lys Glu Glu Ala Arg Glu Lys Met Leu Ala Ala Lys		
20	25	30
Ser Ala Asp Gly Ser Ala Pro Ala Gly Glu Gly Glu Gly Val Thr		
35	40	45
Leu Gln Arg Asn Ile Thr Leu Leu Asn Gly Val Ala Ile Ile Val		
50	55	60
Gly Thr Ile Ile Gly Ser Gly Ile Phe Val Thr Pro Thr Gly Val		
65	70	75
Leu Lys Glu Ala Gly Ser Pro Gly Leu Ala Leu Val Val Trp Ala		
80	85	90
Ala Cys Gly Val Phe Ser Ile Val Gly Ala Leu Cys Tyr Ala Glu		
95	100	105
Leu Gly Thr Thr Ile Ser Lys Ser Gly Gly Asp Tyr Ala Tyr Met		
110	115	120
Leu Glu Val Tyr Gly Ser Leu Pro Ala Phe Leu Lys Leu Trp Ile		
125	130	135
Glu Leu Leu Ile Ile Arg Pro Ser Ser Gln Tyr Ile Val Ala Leu		
140	145	150
Val Phe Ala Thr Tyr Leu Leu Lys Pro Leu Phe Pro Thr Cys Pro		
155	160	165
Val Pro Glu Glu Ala Ala Lys Leu Val Ala Cys Leu Cys Val Leu		
170	175	180
Leu Leu Thr Ala Val Asn Cys Tyr Ser Val Lys Ala Ala Thr Arg		
185	190	195
Val Gln Asp Ala Phe Ala Ala Ala Lys Leu Leu Ala Leu Ala Leu		
200	205	210
Ile Ile Leu Leu Gly Phe Val Gln Ile Gly Lys Gly Asp Val Ser		
215	220	225
Asn Leu Asp Pro Lys Phe Ser Phe Glu Gly Thr Lys Leu Asp Val		
230	235	240
Gly Asn Ile Val Leu Ala Leu Tyr Ser Gly Leu Phe Ala Tyr Gly		
245	250	255
Gly Trp Asn Tyr Leu Asn Phe Val Thr Glu Glu Met Ile Asn Pro		
260	265	270
Tyr Arg Asn Leu Pro Leu Ala Ile Ile Ile Ser Leu Pro Ile Val		
275	280	285

PF-0633 USN

Thr	Leu	Val	Tyr	Val	Leu	Thr	Asn	Leu	Ala	Tyr	Phe	Thr	Thr	Leu
290						295								300
Ser	Thr	Glu	Gln	Met	Leu	Ser	Ser	Glu	Ala	Val	Ala	Val	Asp	Phe
305							310							315
Gly	Asn	Tyr	His	Leu	Gly	Val	Met	Ser	Trp	Ile	Ile	Pro	Val	Phe
320							325							330
Val	Gly	Leu	Ser	Cys	Phe	Gly	Ser	Val	Asn	Gly	Ser	Leu	Phe	Thr
335							340							345
Ser	Ser	Arg	Leu	Phe	Phe	Val	Gly	Ser	Arg	Glu	Gly	His	Leu	Pro
350							355							360
Ser	Ile	Leu	Ser	Met	Ile	His	Pro	Gln	Leu	Leu	Thr	Pro	Val	Pro
365							370							375
Ser	Leu	Val	Phe	Thr	Cys	Val	Met	Thr	Leu	Leu	Tyr	Ala	Phe	Ser
380							385							390
Lys	Asp	Ile	Phe	Ser	Val	Ile	Asn	Phe	Phe	Ser	Phe	Phe	Asn	Trp
395							400							405
Leu	Cys	Val	Ala	Leu	Ala	Ile	Ile	Gly	Met	Ile	Trp	Leu	Arg	His
410							415							420
Arg	Lys	Pro	Glu	Leu	Glu	Arg	Pro	Ile	Lys	Val	Asn	Leu	Ala	Leu
425							430							435
Pro	Val	Phe	Phe	Ile	Leu	Ala	Cys	Leu	Phe	Leu	Ile	Ala	Val	Ser
440							445							450
Phe	Trp	Lys	Thr	Pro	Val	Glu	Cys	Gly	Ile	Gly	Phe	Thr	Ile	Ile
455							460							465
Leu	Ser	Gly	Leu	Pro	Val	Tyr	Phe	Phe	Gly	Val	Trp	Trp	Lys	Asn
470							475							480
Lys	Pro	Lys	Trp	Leu	Leu	Gln	Gly	Ile	Phe	Ser	Thr	Thr	Val	Leu
485							490							495
Cys	Gln	Lys	Leu	Met	Gln	Val	Val	Pro	Gln	Glu	Thr			
500							505							

<210> 39
<211> 504
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> GenBank ID No: g1840045

<400> 39

Met	Glu	Ala	Pro	Leu	Gln	Thr	Glu	Met	Val	Glu	Leu	Val	Pro	Asn
1				5				10					15	
Gly	Lys	His	Ser	Glu	Gly	Leu	Leu	Pro	Val	Ile	Thr	Pro	Met	Ala
							20		25				30	
Gly	Asn	Gln	Arg	Val	Glu	Asp	Pro	Ala	Arg	Ser	Cys	Met	Glu	Gly
							35		40				45	
Lys	Ser	Phe	Leu	Gln	Lys	Ser	Pro	Ser	Lys	Glu	Pro	His	Phe	Thr
							50		55				60	
Asp	Phe	Glu	Gly	Lys	Thr	Ser	Phe	Gly	Met	Ser	Val	Phe	Asn	Leu
							65		70				75	
Ser	Asn	Ala	Ile	Met	Gly	Ser	Gly	Ile	Leu	Gly	Leu	Ala	Tyr	Ala
							80		85				90	
Met	Ala	Asn	Thr	Gly	Ile	Ile	Leu	Phe	Leu	Phe	Leu	Leu	Thr	Ala

95	100	105
Val Ala Leu Leu Ser Ser Tyr Ser Ile His	Leu Leu Leu Lys	Ser
110	115	120
Ser Gly Val Val Gly Ile Arg Ala Tyr Glu	Gln Leu Gly Tyr	Arg
125	130	135
Ala Phe Gly Thr Pro Gly Lys Leu Ala Ala	Ala Leu Ala Ile	Thr
140	145	150
Leu Gln Asn Ile Gly Ala Met Ser Ser Tyr	Leu Tyr Ile Ile	Lys
155	160	165
Ser Glu Leu Pro Leu Val Ile Gln Thr Phe	Leu Asn Leu Glu	Glu
170	175	180
Lys Thr Ser Asp Trp Tyr Met Asn Gly Asn	Tyr Leu Val Ile	Leu
185	190	195
Val Ser Val Thr Ile Ile Leu Pro Leu Ala	Leu Met Arg Gln	Leu
200	205	210
Gly Tyr Leu Gly Tyr Ser Ser Gly Phe Ser	Leu Ser Cys Met	Val
215	220	225
Phe Phe Leu Ile Ala Val Ile Tyr Lys Lys	Phe His Val Pro	Cys
230	235	240
Pro Leu Pro Pro Asn Phe Asn Asn Thr Thr	Gly Asn Phe Ser	His
245	250	255
Val Glu Ile Val Lys Glu Lys Val Gln Leu	Gln Val Glu Pro	Glu
260	265	270
Ala Ser Ala Phe Cys Thr Pro Ser Tyr Phe	Thr Leu Asn Ser	Gln
275	280	285
Thr Ala Tyr Thr Ile Pro Ile Met Ala Phe	Ala Phe Val Cys	His
290	295	300
Pro Glu Val Leu Pro Ile Tyr Thr Glu Leu	Lys Asp Pro Ser	Lys
305	310	315
Lys Lys Met Gln His Ile Ser Asn Leu Ser	Ile Ala Val Met	Tyr
320	325	330
Ile Met Tyr Phe Leu Ala Ala Leu Phe Gly	Tyr Leu Thr Phe	Tyr
335	340	345
Asn Gly Val Glu Ser Glu Leu Leu His Thr	Tyr Ser Lys Val	Asp
350	355	360
Pro Phe Asp Val Leu Ile Leu Cys Val Arg	Val Ala Val Leu	Thr
365	370	375
Ala Val Thr Leu Thr Val Pro Ile Val Leu	Phe Pro Val Arg	Arg
380	385	390
Ala Ile Gln Gln Met Leu Phe Pro Asn Gln	Glu Phe Ser Trp	Leu
395	400	405
Arg His Val Leu Ile Ala Val Gly Leu Leu	Thr Cys Ile Asn	Leu
410	415	420
Leu Val Ile Phe Ala Pro Asn Ile Leu Gly	Ile Phe Gly Val	Ile
425	430	435
Gly Ala Thr Ser Ala Pro Phe Leu Ile Phe	Ile Phe Pro Ala	Ile
440	445	450
Phe Tyr Phe Arg Ile Met Pro Thr Glu Lys	Glu Pro Ala Arg	Ser
455	460	465
Thr Pro Lys Ile Leu Ala Leu Cys Phe Ala	Met Leu Gly Phe	Leu
470	475	480
Leu Met Thr Met Ser Leu Ser Phe Ile Ile	Asp Trp Ala Ser	
485	490	495
Gly Thr Ser Arg His Gly Gly Asn His		

500

<210> 40
<211> 393
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> GenBank ID No: g1526438

<400> 40
Met Ala Ala Val Gly Ala Gly Gly Ser Thr Ala Ala Pro Gly Pro
1 5 10 15
Gly Ala Val Ser Ala Gly Ala Leu Glu Pro Gly Thr Ala Ser Ala
20 25 30
Ala His Arg Arg Leu Lys Tyr Ile Ser Leu Ala Val Leu Val Val
35 40 45
Gln Asn Ala Ser Leu Ile Leu Ser Ile Arg Tyr Ala Arg Thr Leu
50 55 60
Pro Gly Asp Arg Phe Phe Ala Thr Thr Ala Val Val Met Ala Glu
65 70 75
Val Leu Lys Gly Leu Thr Cys Leu Leu Leu Leu Phe Ala Gln Lys
80 85 90
Arg Gly Asn Val Lys His Leu Val Leu Phe Leu His Glu Ala Val
95 100 105
Leu Val Gln Tyr Val Asp Thr Leu Lys Leu Ala Val Pro Ser Leu
110 115 120
Ile Tyr Thr Leu Gln Asn Asn Leu Gln Tyr Val Ala Ile Ser Asn
125 130 135
Leu Pro Ala Ala Thr Phe Gln Val Thr Tyr Gln Leu Lys Ile Leu
140 145 150
Thr Thr Ala Leu Phe Ser Val Leu Met Leu Asn Arg Ser Leu Ser
155 160 165
Arg Leu Gln Trp Ala Ser Leu Leu Leu Leu Phe Thr Gly Val Ala
170 175 180
Ile Val Gln Ala Gln Gln Ala Gly Gly Gly Pro Arg Pro Leu
185 190 195
Asp Gln Asn Pro Gly Ala Gly Leu Ala Ala Val Val Ala Ser Cys
200 205 210
Leu Ser Ser Gly Phe Ala Gly Val Tyr Phe Glu Lys Ile Leu Lys
215 220 225
Gly Ser Ser Gly Ser Val Trp Leu Arg Asn Leu Gln Leu Gly Leu
230 235 240
Phe Gly Thr Ala Leu Gly Leu Val Gly Leu Trp Trp Ala Glu Gly
245 250 255
Thr Ala Val Ala Thr Arg Gly Phe Phe Phe Gly Tyr Thr Pro Ala
260 265 270
Val Trp Gly Val Val Leu Asn Gln Ala Phe Gly Gly Leu Leu Val
275 280 285
Ala Val Val Val Lys Tyr Ala Asp Asn Ile Leu Lys Gly Phe Ala
290 295 300
Thr Ser Leu Ser Ile Val Leu Ser Thr Val Ala Ser Ile Arg Leu
305 310 315

PF-0633 USN

Phe Gly Phe His Val Asp Pro Leu Phe Ala Leu Gly Ala Gly Leu
320 325 330
Val Ile Gly Ala Val Tyr Leu Tyr Ser Leu Pro Arg Gly Ala Ala
335 340 345
Lys Ala Ile Ala Ser Ala Ser Ala Ser Gly Pro Cys Val
350 355 360
His Gln Gln Pro Pro Gly Gln Pro Pro Pro Gln Leu Ser Ser
365 370 375
His Arg Gly Asp Leu Ile Thr Glu Pro Phe Leu Pro Lys Ser Val
380 385 390
Leu Val Lys

<210> 41
<211> 893
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> GenBank ID No: g3335175

<400> 41
His Val Gln Asp Phe Thr Ala Phe Trp Asp Lys Ala Ser Glu Thr
1 5 10 15
Pro Thr Leu Gln Gly Leu Ser Phe Thr Val Arg Pro Gly Glu Leu
20 . 25 30
Leu Ala Val Val Gly Pro Val Gly Ala Gly Lys Ser Ser Leu Leu
35 . 40 45
Ser Ala Val Leu Gly Glu Leu Ala Pro Ser His Gly Leu Val Ser
50 55 60
Val His Gly Arg Ile Ala Tyr Val Ser Gln Gln Pro Trp Val Phe
65 70 75
Ser Gly Thr Leu Arg Ser Asn Ile Leu Phe Gly Lys Lys Tyr Glu
80 85 90
Lys Glu Arg Tyr Glu Lys Val Ile Lys Ala Cys Ala Leu Lys Lys
95 100 105
Asp Leu Gln Leu Leu Glu Asp Gly Asp Leu Thr Val Ile Gly Asp
110 115 120
Arg Gly Thr Thr Leu Ser Gly Gly Gln Lys Ala Arg Val Asn Leu
125 130 135
Ala Arg Ala Val Tyr Gln Asp Ala Asp Ile Tyr Leu Leu Asp Asp
140 145 150
Pro Leu Ser Ala Val Asp Ala Glu Val Ser Arg His Leu Phe Glu
155 160 165
Leu Cys Ile Cys Gln Ile Leu His Glu Lys Ile Thr Ile Leu Val
170 175 180
Thr His Gln Leu Gln Tyr Leu Lys Ala Ala Ser Gln Ile Leu Ile
185 190 195
Leu Lys Asp Gly Lys Met Val Gln Lys Gly Thr Tyr Thr Glu Phe
200 205 210
Leu Lys Ser Gly Ile Asp Phe Gly Ser Leu Leu Lys Lys Asp Asn
215 220 225
Glu Glu Ser Glu Gln Pro Pro Val Pro Gly Thr Pro Thr Leu Arg

230	235	240
Asn Arg Thr Phe Ser Glu Ser Ser Val	Trp Ser Gln Gln Ser Ser	
245	250	255
Arg Pro Ser Leu Lys Asp Gly Ala Leu	Glu Ser Gln Asp Thr Glu	
260	265	270
Asn Val Pro Val Thr Leu Ser Glu Glu	Asn Arg Ser Glu Gly Lys	
275	280	285
Val Gly Phe Gln Ala Tyr Lys Asn Tyr	Phe Arg Ala Gly Ala His	
290	295	300
Trp Ile Val Phe Ile Phe Leu Ile Leu	Leu Asn Thr Ala Ala Gln	
305	310	315
Val Ala Tyr Val Leu Gln Asp Trp Trp	Leu Ser Tyr Trp Ala Asn	
320	325	330
Lys Gln Ser Met Leu Asn Val Thr Val	Asn Gly Gly Gly Asn Val	
335	340	345
Thr Glu Lys Leu Asp Leu Asn Trp Tyr	Leu Gly Ile Tyr Ser Gly	
350	355	360
Leu Thr Val Ala Thr Val Leu Phe Gly	Ile Ala Arg Ser Leu Leu	
365	370	375
Val Phe Tyr Val Leu Val Asn Ser Ser	Gln Thr Leu His Asn Lys	
380	385	390
Met Phe Glu Ser Ile Leu Lys Ala Pro	Val Leu Phe Phe Asp Arg	
395	400	405
Asn Pro Ile Gly Arg Ile Leu Asn Arg	Phe Ser Lys Asp Ile Gly	
410	415	420
His Leu Asp Asp Leu Leu Pro Leu Thr	Phe Leu Asp Phe Ile Gln	
425	430	435
Thr Leu Leu Gln Val Val Gly Val Val	Ser Val Ala Val Ala Val	
440	445	450
Ile Pro Trp Ile Ala Ile Pro Leu Val	Pro Leu Gly Ile Ile Phe	
455	460	465
Ile Phe Leu Arg Arg Tyr Phe Leu Glu	Thr Ser Arg Asp Val Lys	
470	475	480
Arg Leu Glu Ser Thr Thr Arg Ser Pro	Val Phe Ser His Leu Ser	
485	490	495
Ser Ser Leu Gln Gly Leu Trp Thr Ile	Arg Ala Tyr Lys Ala Glu	
500	505	510
Glu Arg Cys Gln Glu Leu Phe Asp Ala	His Gln Asp Leu His Ser	
515	520	525
Glu Ala Trp Phe Leu Phe Leu Thr Thr	Ser Arg Trp Phe Ala Val	
530	535	540
Arg Leu Asp Ala Ile Cys Ala Met Phe	Val Ile Ile Val Ala Phe	
545	550	555
Gly Ser Leu Ile Leu Ala Lys Thr Leu	Asp Ala Gly Gln Val Gly	
560	565	570
Leu Ala Leu Ser Tyr Ala Leu Thr Leu	Met Gly Met Phe Gln Trp	
575	580	585
Cys Val Arg Gln Ser Ala Glu Val Glu	Asn Met Met Ile Ser Val	
590	595	600
Glu Arg Val Ile Glu Tyr Thr Asp Leu	Glu Lys Glu Ala Pro Trp	
605	610	615
Glu Tyr Gln Lys Arg Pro Pro Pro Ala	Trp Pro His Glu Gly Val	
620	625	630
Ile Ile Phe Asp Asn Val Asn Phe Met	Tyr Ser Pro Gly Gly Pro	

PF-0633 USN

635	640	645
Leu Val Leu Lys His Leu Thr Ala Leu Ile Lys Ser Gln Glu Lys		
650	655	660
Val Gly Ile Val Gly Arg Thr Gly Ala Gly Lys Ser Ser Leu Ile		
665	670	675
Ser Ala Leu Phe Arg Leu Ser Glu Pro Glu Gly Lys Ile Trp Ile		
680	685	690
Asp Lys Ile Leu Thr Thr Glu Ile Gly Leu His Asp Leu Arg Lys		
695	700	705
Lys Met Ser Ile Ile Pro Gln Glu Pro Val Leu Phe Thr Gly Thr		
710	715	720
Met Arg Lys Asn Leu Asp Pro Phe Lys Glu His Thr Asp Glu Glu		
725	730	735
Leu Trp Asn Ala Leu Gln Glu Val Gln Leu Lys Glu Thr Ile Glu		
740	745	750
Asp Leu Pro Gly Lys Met Asp Thr Glu Leu Ala Glu Ser Gly Ser		
755	760	765
Asn Phe Ser Val Gly Gln Arg Gln Leu Val Cys Leu Ala Arg Ala		
770	775	780
Ile Leu Arg Lys Asn Gln Ile Leu Ile Ile Asp Glu Ala Thr Ala		
785	790	795
Asn Val Asp Pro Arg Thr Asp Glu Leu Ile Gln Lys Lys Ile Arg		
800	805	810
Glu Lys Phe Ala His Cys Thr Val Leu Thr Ile Ala His Arg Leu		
815	820	825
Asn Thr Ile Ile Asp Ser Asp Lys Ile Met Val Leu Asp Ser Gly		
830	835	840
Arg Leu Lys Glu Tyr Asp Glu Pro Tyr Val Leu Leu Gln Asn Lys		
845	850	855
Glu Ser Leu Phe Tyr Lys Met Val Gln Gln Leu Gly Lys Ala Glu		
860	865	870
Ala Ala Ala Leu Thr Glu Thr Ala Lys Gln Val Ile Leu Gln Lys		
875	880	885
Lys Leu Ser Thr Tyr Trp Ser His		
890		

<210> 42
<211> 453
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> GenBank ID No: g1279457

<400> 42
Met Ala Leu Arg Gly Phe Cys Ser Arg Trp Leu Arg Pro Ala Leu
1 5 10 15
Ala Ile Gly Leu Phe Ala Ser Met Ala Ala Val Leu Leu Gly Gly
20 25 30
Ala Arg Ala Ser Arg Leu Leu Phe Gln Arg Leu Leu Trp Asp Val
35 40 45
Val Arg Ser Pro Ile Ser Phe Phe Glu Arg Thr Pro Ile Gly His
50 55 60

Leu Leu Asn Arg Phe Ser Lys Glu Thr Asp Thr Val Asp Val Asp
 65 70 75
 Ile Pro Asp Lys Leu Arg Ser Leu Leu Met Tyr Ala Phe Gly Leu
 80 85 90
 Leu Glu Val Ser Leu Val Val Glu Trp Pro Thr Pro Leu Pro Leu
 95 100 105
 Trp Pro Ser Cys His Cys Phe Ser Ser Thr Leu Gly Phe Arg Trp
 110 115 120
 Leu Ala Ala Asn Val Glu Leu Leu Gly Asn Gly Leu Val Phe Ala
 125 130 135
 Ala Ala Thr Cys Ala Val Leu Ser Lys Ala His Leu Ser Ala Gly
 140 145 150
 Leu Val Gly Phe Ser Val Ser Ala Ala Leu Gln Val Thr Gln Thr
 155 160 165
 Leu Gln Trp Val Val Arg Asn Trp Thr Asp Leu Glu Asn Ser Ile
 170 175 180
 Val Ser Val Glu Arg Met Gln Asp Tyr Ala Trp Thr Pro Lys Glu
 185 190 195
 Ala Pro Trp Arg Leu Pro Thr Cys Ala Ala Gln Pro Pro Trp Pro
 200 205 210
 Gln Gly Gly Gln Ile Glu Phe Arg Asp Phe Gly Leu Arg Tyr Arg
 215 220 225
 Pro Glu Leu Pro Leu Ala Val Gln Gly Val Ser Phe Lys Ile His
 230 235 240
 Ala Gly Glu Lys Val Gly Ile Val Gly Arg Thr Gly Ala Gly Lys
 245 250 255
 Ser Ser Leu Ala Ser Gly Leu Leu Arg Leu Gln Glu Ala Ala Glu
 260 265 270
 Gly Gly Ile Trp Ile Asp Gly Val Pro Ile Ala His Val Gly Val
 275 280 285
 His Thr Leu Arg Ser Arg Ile Ser Ile Ile Pro Gln Asp Pro Ile
 290 295 300
 Leu Phe Pro Gly Ser Leu Arg Met Asn Leu Asp Leu Leu Gln Glu
 305 310 315
 His Ser Asp Glu Ala Ile Trp Ala Ala Leu Glu Thr Val Gln Leu
 320 325 330
 Lys Ala Leu Val Ala Cys Leu Pro Gly Gln Leu Gln Tyr Lys Cys
 335 340 345
 Ala Asp Arg Gly Glu Asp Leu Ser Val Gly Gln Lys Gln Leu Leu
 350 355 360
 Cys Leu Ala Arg Ala Leu Leu Arg Lys Thr Gln Ile Leu Ile Leu
 365 370 375
 Asp Glu Ala Thr Ala Ala Val Asp Pro Gly Thr Glu Leu Gln Met
 380 385 390
 Gln Ala Met Leu Gly Ser Trp Phe Ala Gln Cys Thr Val Leu Leu
 395 400 405
 Ile Ala His Arg Leu Arg Ser Val Met Asp Cys Ala Arg Val Leu
 410 415 420
 Val Met Asp Lys Gly Gln Val Ala Glu Ser Gly Ser Pro Ala Gln
 425 430 435
 Leu Leu Ala Gln Lys Gly Leu Phe Tyr Arg Leu Ala Gln Glu Ser
 440 445 450
 Gly Leu Val